Application No. 10/537,756 WSGR Reference No. 35813-709.831

Listing of Claims:

- (Original) A method of screening or testing for candidate anti-fungal compounds that impair
 1-phosphotidylinositol-4-phosphate 5-kinase enzyme (MSS4) function, comprising:
 - (a) providing fungal MSS4;
 - (b) providing one or more candidate compounds;
 - (c) contacting said MSS4 with said one or more candidate compounds; and
 - (d) determining the interaction of the candidate compound with said MSS4.
- (Original) A method according to claim 1 wherein the MSS4 comprises a fragment, a function-conservative variant, an active fragment or a fusion protein of MSS4.
- (Original) A method according to claim 1, wherein the fungal MSS4 is from a fungus of Candida or Aspergillus species.
- 4. (Cancelled)
- 5. (Cancelled)
- (Cancelled)
- 7. (Cancelled)
- 8. (Currently Amended) A method of screening or testing for candidate anti-fungal compounds that impair 1-phosphotidylinositol-4-phosphate 5-kinase enzyme (MSS4) function, comprising:
 - (a) providing fungal MSS4 in a eukaryotic cell(s) modified eukaryotic cell(s) wherein the cell(s) expresses fungal MSS4 under the control of a heterologous promoter as defined in elaim 4:
 - (b) providing one or more candidate compounds;
 - (c) contacting said eukaryotic cell(s) with said one or more candidate compounds; and

(d) determining the interaction of the candidate compound with said MSS4 by assessing the effect on growth or viability of said cells.

9. (Cancelled)			
10. (Cancelled)			
11. (Cancelled)			
12. (Cancelled)			
13. (Cancelled)			
14. (Cancelled)			
15. (Cancelled)			
16. (Cancelled)			
17. (Cancelled)			
18. (Cancelled)			
19. (Cancelled)			
20. (Cancelled)			
21. (Cancelled)			
22. (Cancelled)			

Application No. 10/537,756 WSGR Reference No. 35813-709.831

- 23. (New) The method of claim 2 wherein the fragment has at least 80% identity to the native polypeptide over the length of the fragment and which is at least ten amino acids long.
- 24. (New) The method of claim 2 wherein the fragment has at least 90% identity to the native polypeptide over the length of the fragment and which is at least ten amino acids long.
- 25. (New) The method of claim 2 wherein the fragment has at least 95% identity to the native polypeptide over the length of the fragment and which is at least ten amino acids long.
- 26. (New) The method of claim 2 wherein the fragment has at least 98% identity to the native polypeptide over the length of the fragment and which is at least ten amino acids long.
- 27. (New) The method of claim 1 or 8 further comprising a growth inhibition assay, a binding assay or a translation inhibition assay.
- 28. (New) The method of claim 1 or 8 wherein at least one candidate compound is a small molecule or a peptide.
- 29. (New) The method of claim 1 or 8 wherein at least one candidate compound is a small molecule.
- 30. (New) The method of claim 1 or 8 wherein the fungal MSS4 is Candida albicans, Aspergillus flavus or Aspergillus fumigatus.
- 30. 31. (New) The method of claim 1 or 8 wherein the fungal MSS4 is Candida albicans.